

**REMARKS**

Claims 1-6 and 21-29 are currently pending in the above-referenced patent application. By this Amendment, claims 3-4 are amended, claims 7-20 are canceled without prejudice or disclaimer and claims 21-29 are added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicant sincerely acknowledges the Office Action indication that claims 4-6 define patentable subject matter. However, for at least the reasons set forth below, Applicant respectfully submits all pending claims are in condition for allowance.

A. In reply to the Restriction Requirement, Applicant hereby elects Group I (claims 1-6 and 8-20), with traverse, for prosecution in the above-identified application.

It is respectfully submitted that the subject matter of each of the designated inventions is sufficiently related that a thorough search for the subject matter of each of the designated inventions would encompass a search for the subject matter of the remaining designated inventions. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. See MPEP §803 in which it states that "if the search and examination of an entire application can be made without serious burden, the Examiner must examine it on

the merits, even though it includes claims to distinct or independent inventions." It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicant and duplicative examination by the U.S. Patent and Trademark Office.

B. The Office Action rejects claims 1-3 under 35 U.S.C. §103(a) over U.S. Patent No. 5,532,712 to Tsuda et al. (hereafter "Tsuda"). The rejection is respectfully traversed.

With respect to claim 1, Applicant respectfully submits that Tsuda fails to teach or suggest every claimed feature as required under §103. For example, Tsuda fails to teach or suggest at least features of a driving circuit for a display device including a DC-DC converter provided inside one chip, for converting an external voltage input depending on a timing control signal and providing a controlled DC voltage, and combinations thereof as recited in claim 1.

Tsuda relates to a drive circuit for use with transmissive scattered liquid crystal display device. In Figure 8 and the accompanying description in column 6-7, device 3 is disclosed as a drive IC. In the drive IC device 3, Vcc is coupled only to a R/L terminal of a shift register. In Figure 10 of Tsuda and the accompanying description in column 8, an insulated DC-DC converter 11 is disclosed. However, insulated DC-DC converter 11 is not a part of device 3. In addition, the DC-DC

converter 11 of Fig. 10 in Tsuda uses a fixed voltage. Thus, Tsuda requires a controlling part outside the chip for controlling an external voltage.

However, in embodiments of the present invention, the output voltage is changed by the DC-DC converter inside the chip. Thus, Applicants respectfully submit that Tsuda does not teach or suggest any modification to its disclosure that would result in at least features of a DC-DC converter provided inside one chip, for converting an external voltage input depending on a timing control signal and providing a controlled DC voltage and combinations thereof as recited in claim 1.

For at least the reasons set forth above, Applicants respectfully submit that claim 1 defines patentable subject matter. Dependent claims 2-3 are allowable for at least the reasons discussed above with respect to independent claim 1, from which they depend, as well as for their additionally recited features. Withdrawal of the rejection of claims 1-3 under 35 U.S.C. §103 is respectfully requested.

D. The Office Action rejects claims 8-12 under 35 U.S.C. §102(b) over U.S. Patent No. 5,489,867 to Tamanoi. This rejection is moot because the indicated claims have been canceled, but is respectfully traversed to the extent that it may be applicable to new claims 21-29.

E. Claims 21-29 are newly added by this amendment and are believed to be in condition for allowance. Applicant respectfully submits the prior art does not

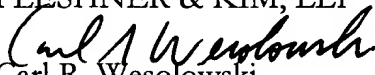
teach or suggest features of controlling an output voltage using a DC-DC converter inside one chip having a feedback circuit, a DC-DC converter including a voltage control unit, and a DC-DC converter wherein the controlled DC voltage is changed by the DC-DC converter inside the chip.

**CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski** at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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